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# MISSILE DEFENSE: THE NEED FOR A SINGLE DEVELOPMENT PROCESS

BY

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# MISSILE DEFENSE: THE NEED FOR A SINGLE DEVELOPMENT PROCESS

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## ABSTRACT

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With the announcement of the National Security Presidential Directive -23, the United States was committed to produce a set of initial missile defense capabilities by 2004. This was achieved. The Missile Defense Agency (MDA) is charged with developing and deploying a layered Ballistic Missile Defense System (BMDS) in capability blocks to defend the U.S. homeland, deployed forces, friends, and allies. The MDA in concert with USSTRATCOM developed a Warrior Involvement Process (WIP) to give Geographical Combatant Commanders a venue to make known their needs and capability desires. The Department of Defense established the Missile Defense Executive Board to provide executive oversight of BMDS development, acquisition, and procurement. This study examines the current developmental processes and recommends that DoD institute a single development process that includes participation from DoD, Military Services, MDA, USSTRATCOM, and Combatant Commands. Furthermore, research suggests that including allies in the development process would unify the protection stance world-wide. In addition, it would save U.S. costs, and send a clear message to nations seeking to proliferate ballistic missiles.

# MISSILE DEFENSE: THE NEED FOR A SINGLE DEVELOPMENT PROCESS

Nuclear tipped ballistic missiles are by far the most dangerous security threat the United States and its allies face today. During the Cold War the United States relied on treaties with the former Soviet Union establishing a policy of “assured mutual destruction” to counter the threat of ballistic missiles. Today, with the proliferation of ballistic missiles and world leaders willing to use them, the United States is in a strategic quandary on the appropriate strategy to pursue in order to defend the nation from missile attacks. Current national policy stresses the need for a viable missile defense capability to deter and defeat acts of aggression whether accidental or deliberate.[1] The Missile Defense Agency (MDA) is the Department of Defense’s (DoD) executive agent to provide oversight to develop and integrate programs into a ballistic missile defense system.[2] The MDA has made tremendous strides to achieve its’ mission directives. In 2006 it produced a viable missile defense system which provided limited protection against intercontinental ballistic missiles. This capability meets National Security Presidential Directive (NSPD)-23.[3]

Interestingly, in meeting the presidential demands, MDA is not subject to the traditional 5000 series acquisition directives or the Joint Capabilities Integrated Development system or the Joint Requirements Oversight Council (JROC) approval process.[4] The lack of oversight in research, development, and procurement has created a significant gap between the developer (MDA), the Combatant Commander and the services. This problem must be fixed because ultimately the services man and the Combatant commanders fight the systems, their needs must be considered. In addition,

the geographical combatant commanders have very limited say in the procurement of missile defense systems to achieve their operational mission objectives.

Background

To rapidly deliver a credible missile defense capability MDA was, in essence, "handed a blank check" with limited oversight from DoD. This has caused consternation with the Services and with the Combatant Commanders. DoD has recently recognized and taken measures to address these concerns. U.S. Strategic Command (USSTRATCOM), the functional component command for ballistic missile defense, recently became the fusion cell of the combatant commands and developed the Warfighter Involvement Process to provide a vehicle for the Combatant Commands to voice their concerns and address their needs. However, the process is still evolving and is limited in its intent to deliver the right capabilities requested by the combatant commands.

The Government Accountability Office (GAO)-08-740 provides a clear and concise recommendation to address the needs of the combatant commands[5] but noticeably lacks any recommendations to address the concerns of the Military Departments. The intent of this paper is to explore the current missile defense processes in place, adjudicate the goodness of each process, and recommend a centralized process that is beneficial for all the stakeholders in the development, procurement, and warfighting aspects of missile defense.

To achieve national policy objectives and involve all parts of DoD, the Honorable John Young, the Under Secretary of Defense for Acquisition, Technology, and Logistics created a new body to address the concerns of senior DoD officials.[6] The Defense

Department established the Missile Defense Executive Board (MDEB) to make recommendations to the Deputy Secretary of Defense on implementation of policies and plans, program priorities, and investment decisions.[7] Through the MDEB, the appropriate level of oversight for the development, acquisition, and procurement of ballistic missile defense systems (BMDS) is applied. DoD is the only agency that can provide synergy in meeting the demands of national policy; ensuring that the warfighter has a voice, the functional command (USSTRATCOM) can fuse BMDS responsibilities that adhere to the Unified Command Plan, and the Military Departments can shape the desired BMDS stance through approved documented requirements. Currently, all the BMDS's processes are not codified nor subject to oversight by any senior civilian DoD leader.[8]

The newly created MDEB has the potential to give all the missile defense stakeholders a voice, primarily in the key area of investment. The Warfighter Involvement Process once ratified and approved by all parties, will provide a conduit for the Combatant Commands to influence what MDA spends its money on. The crux of the process that isn't addressed is the responsibilities of the Military Departments. Once a BMDS is fielded, the responsibility shifts to the appropriate Services for manning and sustaining. Each of the Services has a vested interest in the BMDS process, mainly due to the exorbitant costs it will take to maintain the systems. However, the services are largely left out of the development and requirement process.

DoD must provide oversight to ensure the national policy objectives are attained. The MDA must continue the pursuit of solidifying the Warfighter Involvement Process

and create a parallel process that allows the Services to provide insight and their prospective prior to the transfer of the functional systems.

The accelerated pace of BMDS procurement creates the need for recurring stakeholder involvement. Delivering a capability that is not vetted by all the missile defense stakeholders isn't in the best interest of the nation especially when the services and combatant commands do not have a vote. DoD leadership needs MDA to present, for approval, a unified process that has the national interests in the forefront.

Stakeholder Process Involvement: Ends, Ways and Means

National policy states the nation's key strategic endstate, its "End", is to defend the homeland of the United States, our allies, our deployed forces, and friends from ballistic missile attacks at any range in all phases of flight.[9] The execution agency to achieve this end is the Combatant Commands and the missile defense assets, from the respective services, apportioned to meet mission objectives. The primary strategic objective is to defend the American people from catastrophic missile attacks. This objective drove our nation to field the Ground-Based Midcourse Defense System (GBI) in 2004[10], giving the nation a limited capability to defeat intercontinental ballistic missiles armed with warheads containing weapons of mass destruction.

The BMD debate, which has increased in intensity, both internationally and domestically, has shaped current U.S. security policy. The United States' strategy to field missile defense systems has fueled international dissention. In particular, Russia has voiced their objections to U.S. policy since the U.S. began withdrawing from the anti-ballistic missile treaty. Russia views the U.S. acquisition of the BMDS as a shift in

the balance of power, giving them limited options to counter U.S. strategy. Russia's argument will continue to rage as the U.S. seeks to install a GBI system in Europe.

Through all the rhetoric, the central issue for U.S. policy makers, specifically for the president, is determining if a BMDS is worth the investment. The Bush Administration's policy decision to invest in missile defense became the Administration's highest priority.[11] It is interesting to note that the vast majority of the American populace, approximately 70%, prior to GBI activation thought the U.S. already possessed a national defense system.[12] Ultimately, the U.S. chose to procure a credible GBI system, its "means", as the centerpiece and actively fill the defense umbrella with service-sponsored expeditionary missile defense assets. The Combatant Commanders are charged with addressing this policy as they redesign their contingency plans. More importantly it becomes a vital asset when addressing countries in their Areas of Responsibilities (AOR). Lt. General Trey Obering, Director of the Missile Defense Agency, succinctly provided a response to the debate during a DoD News briefing:

> Oftentimes, we're painted in missile defense as being in conflict with arms control measures or nonproliferation measures, and I believe nothing could be farther from (sic) the truth. In fact, I believe that one of the reasons we've seen the proliferation of these missiles in the past is that there has historically been no defense against them. So they are of a lot of value to nations like Iran and North Korea. If we join together – U.S., NATO, Russia – and field effective missile defenses, I believe it will have an effect on the value of these weapons. It will devalue them in the eyes of some of these countries.[13]

The current process for Combatant Commanders to address their capability needs is through the MDA and the USSTRATCOM sponsored Warrior Involvement Process (WIP). The WIP is still evolving and has not yet been signed by any agency. This document outlines each agencies roles and responsibilities and needs to be

codified. This is because combatant commands priority requirements currently have no weight or influence on what the MDA invests its nearly $10 billion budget.

MDA has an inherent national interest to procure systems focused on the defense of the homeland, when the main threat is from long-range ballistic missiles. However, combatant commands are more regionally focused and need systems to defeat medium to short-range missiles as well. This entails defense systems that are mobile and contain a robust command and control system linked to all national sensors. MDA's fielding of the GBI system gives the U.S. a credible defense against Intercontinental Ballistic Missiles (ICBMs), but doesn't conform to current BMDS policy. This policy clearly states, "The United States will not have a final, fixed missile defense architecture"[14] and future BMDS investments will solely focus on mobile systems that are expeditionary as well. If the U.S. maintains this policy, then it's vital to focus on the combatant commands capability needs. Mainly due to the fact that Combatant Commanders need BMDS systems for short periods of time that can counter ballistic missile threats at all ranges of flight.

USSTRATCOM is the responsible functional command to provide synergy and fuse requirements to ultimately possess a viable integrated missile defense program. The Joint Functional Component Command for Integrated Missile Defense (JFCC IMD) was created by USSTRATCOM in January, 2005 to focus on strategic-level integration and advocacy of all missile defense systems.[15] Essentially JFCC IMD coordinates BMDS development and force management, becoming the central agency for combatant commands to submit their capability needs. The WIP is the only vehicle or mechanism for the combatant commands to outline their missile defense requirements.

Each of the six combatant commands capability requirements are adjudicated at JFCC IMD during the annual WIP to ultimately produce USSTRATCOM's Prioritized Capabilities List (PCL). USSTRATCOM submits the PCL to MDA consolidating the combatant commands' capability needs in order from highest to lowest priority.[16]

The contention with the WIP process rests with the prioritization methodology. Combatant commands have limited or no recourse to voice their descent on the final PCL. Essentially the commands are subject to the PCL, without senior DoD involvement to arbitrate contentious issues. Primarily it limits the commands input on influencing future investments. To fix the WIP, two changes must occur to present a unified stance for coherent missile defense strategy. In addition, several recommendations are made to establish a foundation for a central process linking national and regional interests.

First, JFCC IMD needs to refine the WIP to weigh capability requests from each of the combatant commands. Based on current policy, each combatant command priorities are ranked against the current known threat conforming to national strategy documents. Current national strategy focuses on global threats that possess or have a known policy to procure WMD using ballistic missiles as the delivery vehicle of choice. The WIP needs further risk management and/or risk acceptance emphasis. Specifically the risk the U.S. will assume if the capability procurement is not realized.

The PCL is structured into four categories of desired capabilities: weapons, sensors, battle management, and cross-functional capabilities.[17] Each of the four categories is not ranked by priority but, highlights if the combatant commands placed them in their top five priorities. The bottom line of the PCL leaves debate to whether weapons or sensors are more important.

MDA uses the PCL to produce an Achievable Capabilities List (ACL).[18] The ACL becomes extremely useful to apply resources to procure capabilities that have matured technology to field near-term systems. The WIP must continue to develop the PCL in the unconstrained format, but must also apply achievable timetables linking interoperable systems as packages, primarily systems that are dependent on one another. For example, Sensors that enable Command and Control systems and missiles that are sensor dependent for tracking and flight guidance to enable target acquisition. This will allow the MDA to manage risk to procure systems giving combatant commanders some capability to defend against known threats. The argument to field existing proven defense systems or spend more of the dwindling resources on unproven technology will intensify over the years as the threat increases.

Second, DoD needs a venue to debate MDA's submitted PCLs. This venue must have combatant commanders in attendance. This venue would help arbitrate contentious priorities, and help produce a one voice stance for BMDS development, acquisition, and procurement. The MDEB has significant potential to become this venue to unify and bring synergy within the missile defense community. Separate stovepipe processes compete against each other creating friction within DoD. The DoD Secretary must provide acquisition oversight, conduct risk management, and establish a viable strategy that links the National Security Strategy with the Unified Command Plan (UCP).

A centralized process overseen by the MDEB could help ensure that the missile defense budget is spent on procuring systems that have proven technology, as well as investing in research and development programs needed to fill the gaps for a holistically layered missile defense. The crux of the process is to provide balance to create a

feasible system of systems that focuses on command and control, battle management, and communications (C2BMC). Missile defense systems are unique due to the warfighter's dependence on national sensors for early warning and providing a common operating picture. Without a centralized process, the individual Services will likely continue procuring systems that are incompatible. Interestingly, the current process seems to mirror the past Strategic Defense Initiative (SDI) process. A primary objective of the SDI Organization was to procure a standardized communications system providing connectivity from the engagement authority to the missile defense unit.[19] Twenty years later Patriot batteries operated autonomous during Operation Iraqi Freedom (OIF), showcasing the lack of unity within DoD. Ultimately sensors and interceptors received the main priority, with command and control lagging behind often receiving far less money.

MDA has fielded three systems to combatant commands, as well as an initial Global Integrated Fire Control (GIFC) capability.[20] Acquiring a robust and dependable C2BMC system is ongoing. However, a centralized process that takes into account Combatant Commander needs from the start is needed. This will go a long way in ensuring all six combatant commands possess compatible C2BMC systems.

The most important point for the MDEB is to establish a central process that eliminates Service rivalry and builds consensus for a unified plan that provides balance. The Services will ultimately assume the systems MDA develops and the systems must have utility in expeditionary warfare, which supports the strategy all the Services possess in their doctrine to fulfill the requirements outlined in the Unified Command Plan. Combatant commands eventually have to operate with what the Services provide

for missile defense. Additionally, USSTRATCOM has the primary responsibility for providing integrated missile defense to the U.S. and its military.[21] In essence, it's ultimately what USSTRATCOM provides to the combatant commands to fulfill their Title 10 responsibilities. The MDEB needs to establish a basic strategy of either a capability or threat based approach to acquisition decisions. Each of the Services favor a capability based approach, leveraging technology to fill the envisioned capability gaps. Combatant commands are more in-line with countering the current or near-term threat rather than focusing on systems that are fifteen to twenty years away from fielding. Only DoD can provide the vision on the use of national power to achieve security strategy objectives. This is based on risk management and policy. Current threats may be minimized through diplomacy, where others can be denied only through the use of military power.

The changing environment often places DoD into gray areas for establishing a process to meet the requirements outlined in the UCP. The need for only one functional command to control all missile defense assets will become more important over the next several years. In the near future the range of modern ballistic missiles will influence several combatant command areas of responsibilities. Due to the limited number of missile defense systems available, many combatant commanders will have limited defense assets allocated to them for mission execution. This is a topic that is never addressed at our senior levels and won't be until the U.S. faces two ballistic missile powers simultaneously. Evidence is shown in all our Service and Joint simulation exercises. Commanders have always had their apportioned missile defense systems available for execution. This example highlights the point that missile defense might

need to be removed from the combatant commanders responsibilities outlined in the UCP. David Weller, Dan Boger, and James Michael, from the Naval Post Graduate School, make a convincing argument that this is precisely what should happen and has precedence. For instance in Operation Iraq Freedom (OIF) the United States Special Operations Command (USSOCOM) has been given the authority to conduct missions in the Area of Responsibility of U.S. Central Command using Special Operations Forces teams while under Operational Control (OPCON) of USSOCOM.[22] As the debate continues, the need for a centralized process is becoming obvious. A centralized process may in fact be essential in order to unify the nation, the Military Departments, and the combatant commands.

The MDEB and the WIP have value and utility, and could play a key role in providing missile defense capability to protect the U.S. homeland and its' allies. First, both need to document and codify the current process. Secondly, both processes need active participation from all missile defense stakeholders. The utility comes from the MDEB as a top-driven process and the WIP as a bottom-up process. Senior DoD leadership must adjudicate the priorities presented by the MDA, build consensus among the various missile defense stakeholders, and determine a long-term strategy that is based on achieving capability to defeat any missile threat now and in the future.

Another major importance of a centralized process is the preservation of capital that the U.S. government is willing to spend on missile defense. Resources (Means) will drive the train for the foreseeable future. Spiraling the development of technology is essential to obtain capability when its' ready for production and improve the capability over time as technology becomes available. In short, missile defense systems are

expensive and the U.S. can't afford to start and stop research and development every other presidential administration, only to restart the process at higher costs. Missile defense is an easy target for budget cuts, especially in times of a recession. Congress will continue to debate the issue and the American people will need answers from their politicians. Common sense should dictate the ultimate stance of U.S. policy and the quote from Henry Kissinger's response to the missile defense debate should ring loudly in the halls of Congress, "I never heard of a nation whose policy it is to keep itself vulnerable to attack".[23]

Alternate Recommendations

DoD is likely the only government agency that can produce a centralized process to provide management and leadership in obtaining a layered missile defense system. For the past four years the United States Government Accountability Office (GAO) has assessed MDA's progress in developing and fielding BMDS.[24] Each year the GAO has recommended that MDA finalize a process that involves the Combatant Commands. The WIP initially provided the commands a voice in producing BMDSs. However, the process never included the Military Departments. In addition, the Joint staff has had limited visibility into the current process and must be brought into the process primarily as the Joint force provider.

MDA is the largest research and development program in DoD.[25] The program developed an acquisition strategy in which the development of missile defense capabilities was organized in 2-year increments known as blocks.[26] The first block, Block 2004, produced the initial capability of GBI, Aegis Standard Missile 3 (SM-3) and Patriot Advanced Capability-3 (PAC3), and key C2BMC elements.[27] As stated earlier,

MDA is not constrained to normal DoD acquisition guidelines. This has arguably produced the initial systems much faster than previous defense systems and has obtained capability as fast as industry can generate systems defined in the threshold requirement criteria. This methodology allows the missile defense community to field systems with limited capability and build on them when technology matures. The advantages are numerous; fielding systems, manning, training, and cost effectiveness. A key advantage is having a contract in place to spiral capability as it becomes available. History has shown that system requirements documented ten years earlier ultimately produce a whole new weapon system. The Patriot weapon system is a testament to spiraling capability into a relevant and modern system that is the base line for all future systems. Patriot intercept and sensor accuracy during Desert Storm to Iraqi Freedom is like comparing a biplane to a Jet fighter. This trend must continue in the fielding for all future missile defense systems.

Given the background of the major missile defense stakeholders and their inherent linkage to a development process that addresses and facilitates fielding of systems, a number of recommendations became clear to obtain a centralized process. MDA as the developer of missile defense systems must be the agency assigned to manage the interests and needs of the Services and the Combatant Commanders. The MDEB needs to remain the senior level oversight agency, reporting to the Deputy Secretary of Defense for policy and plans. The JFCC IMD, through USSTRATCOM, should continue to manage and redefine the WIP, giving Combatant Commands a vehicle to address their missile defense requirements. However, research has shown that maybe it is time to commission a study to determine if missile defense responsibility

is properly placed in the Unified Command Plan. Advocates for this strategy change envision USSTRATCOM becoming the supported commander vice the supporting commander for all missile defense missions.[28]

A decade ago this statement would have died a quick death. However, today USSOCOM is setting the precedent by exercising operational control (OPCON) over all Special Operating Forces (SOF) covering several Combatant Commander AORs. Therefore, it is reasonable to study the validity for missile defense as well.

Potential enemies that have ballistic missiles possess the capability to affect all six Geographic Combatant Commands (GCC) simultaneously. Thus, it might be best to have one Functional Combatant Commander retain operational control of all missile defense forces. This approach would of course change the policy and strategy for military planning and would create much debate on unit apportionment and allocation, because all missile defense assets would be assigned to USSTRATCOM. With the current entrenched methodology the need for a centralized missile defense process seems imperative.

The fact remains that there will always be more defended assets than missile defense units. So, the bottom line will rely on prioritization of missile defense assets. Every stakeholder needs a voice and a vote in one development process, not several. The present contemplated two-year time cycle for the Capability Assessment Report[29] that MDA submits to the MDEB should become an annual event. This is important to apply money to requirements, as well as having DoD senior executive involvement to rapidly change the direction of individual programs. Resources are too valuable to

continuously apply money that reinforces BMDS failures. System requirements and Combatant Commander's world-wide needs can change rapidly.

Risk management is clearly attached to DoD senior leadership for all critical acquisition decisions. The MDEB oversight would ensure Service lobbyist's influence is reduced because of the fact that all decisions are nested with the big picture out in front for all to see. Visibility is a vital aspect to the process, because investment decisions become a national imperative rather than Service dominated. The process will reduce political pressure to produce certain capability over the reduction of another capability. For example, many decisions have been made to cut back missile production to procure sensors and vice-a-versa. One centralized process in a forum attended by all missile defense stakeholders will create a unified stance on the near-term direction of all missile defense actions. Several separate processes will delay decisions and entrench old habits of procuring defense systems. The WIP used as a collaborative process could build consensus among the geographical and functional commands before presenting the approved PCL to the MDA. MDA can use the PCL as the guideline, balancing the PCL against other national research and development requirements, and apply budgetary metrics to produce a comprehensive ACL to the MDEB for approval. A centralized process providing synergy from MDA to missile defense units ensures unity of effort in meeting national policy.

Another critical interest is addressed through a one process format, that of sound investment decisions. Instead of competing systems as the norm, the central process will eliminate redundancy and duplicated efforts by the Services. In due course, MDA can build a system of systems using common hardware and software. Ultimately, it will

achieve several objectives outlined by the JFCC IMD, mainly C2BMC and integrated fire control.[30] The reality of firing a Naval interceptor using an Army sensor under a common operating picture is the objective end-state for many old missileers. Ground based sensors, C2BMC, and missile launchers need to be Joint in fielding, manning, and sustainment. U.S. defense missiles must be produced to defeat all ranges of ballistic missiles and capable of ground, air, and ship launches. Ballistic missile defense is a Joint responsibility and the capability needs to be possessed by all the Services. The Joint-centric development process will ensure that the capability is shared and more importantly that funding is distributed equitably as well. The missile defense community needs to create its' own culture where they train, speak, understand, and plan Jointly. Creating a universal missile defender isn't the answer. However, Aegis SM-3 crew members could benefit from exercises with Terminal High Altitude Area Defense (THAAD) crew members. The U.S. must decide to make missile defense a one service responsibility or invest in venues to share lessons learned from each of the missile defense systems. The establishment of the one development program seems the logical choice. It would likely highlight the shortcomings and build on the strengths already achieved by MDA.

Allied Partnership Solution

In order to achieve its vision of obtaining missile defense capability to defend U.S. friends and allies, the U.S. must get those friends and allies to invest in achievable systems for themselves. Many nations are currently investing in anti-missile systems to counter the threat largely from North Korea and Iran.[31] Other regional powers are currently building systems or are interested in obtaining anti-missile systems such as

India, Taiwan, Netherlands, Israel, Italy, and Germany. World diplomacy has restricted U.S. foreign military sales due to the perception of destabilization of the region. Many nations just can't afford the expense. South Korea has struggled for years to settle their political debate on joining U.S. BMDS.[32] With the inauguration of President Lee Myung-bak, South Korea is on track to build an independent theater missile shield that can intercept short- and intermediate-range missiles from North Korea.[33] This would reduce the American footprint and allow more Patriot units to join the expeditionary forces apportioned to Combatant Commander's contingency plans. The wildcard scenario centers on the premise if the United States invests in helping allies obtain missile defense systems then threat nations will see the futility of further expanding their ballistic missile programs. In short, possessing a solid missile defense system will devalue the use of ballistic missiles. MDA's international strategy incorporates this outreach to allies and partners.[34]

The RAND Corporation conducted a study to analyze ballistic missile defense capabilities in a portfolio framework, which included benefits, risks, and costs centered on a real-world scenario.[35] The issue with this study is that it was U.S.-centric only and didn't include the capabilities our allies could bring to the fight. The investment in helping our allies obtain missile defense systems could be extremely valuable and inexpensive, especially when compared to buying, sustaining, and manning the systems on our own. The strategic benefit gained from our allies having a missile defense system is likely in our nation's best interest. A prime example was leveraging Kuwaiti Patriot systems to protect the flow of U.S. and coalition assets into theater. The U.S. expeditionary doctrine will need more allies to possess BMDS to ensure U.S. entry into

the region. Given the need to further advocate for a robust BMDS foreign military sales program, the U.S. needs to expand the development process to include their allies.

MDA is committed to promote a global ballistic missile defense program using bilateral and multilateral means.[36] The next step is the influence of international partners in the development process to produce complimentary systems that are tailored to defend each country's homeland and contribute to regional protection of other partners that don't have the means of self-protection. Trusted allies would contribute immensely to MDA's presentation of the PCL to the MDEB. U.S. allies would help give a world-wide perspective to the dialogue and offer sage advice in the area of risk management. The North Atlantic Treaty Organization (NATO) is the most likely participant that would benefit all nations involved. Including U.S. allies would help strengthen relationships and likely expand policy for the common defense of the world from nations that possess ballistic missiles and have the will to use them. Collectively the diverse development process would make a resounding statement to the nations building their arsenals with missiles and catastrophic payloads. Allied participation in missile defense might help stop the proliferation of ballistic missiles better than current missile defense systems ever could.

## Conclusion

The United States investment in missile defense was signed into law on July 22, 1999, in the form of the National Missile Defense Act of 1999 (Public Law 106-38).[37] President Bush was determined to defend the American people from missile attacks and brushed aside his critics that held on to the rigid Cold War mentality. By withdrawing from the Anti-Ballistic Missile treaty in 2002 and the establishment of the

Missile Defense Agency the U.S. was able to field an initial defense system capable of defeating limited ballistic missile attacks on the continental U.S. homeland. In addition, to defend friends and allies the U.S. has fielded Aegis SM-3 warships, THAAD, Patriot PAC3, and numerous radars and sensors.

The creation of the MDA and allowing its non-standard approach to development and acquisition has produced missile defense capability quickly and without restrictions. However, it is reasonable to rethink the acquisition process and perhaps bring it back under DoD 5000 series directive. Missile defense stakeholders need a one development process that is both bottom-up managed and top-driven with executive oversight to achieve unity of effort. DoD leadership must manage the risks in order to produce a system of systems capability for both the homeland and expeditionary forces. The WIP is currently a viable and useful process to establish a baseline for the needs of the Combatant Commanders. The main recommendation is to codify the prioritization process, bringing in the separate Services to strengthen the stance of the proposed PCL. MDA with the power of the purse must assume risk in applying resources to achieve capability near-term, and also keep their eye on the horizon to invest in research and development of systems that produce capabilities identified in the gap analysis. Through this collaborative process, missile defense stakeholders have a vote in the direction the U.S. needs to take in order to defend the American people, friends, and allies.

Having a single development process would likely strengthen the current simulation and exercise program. Joint and Service exercises could focus on the mix of missile defense units realistically available through allocation instead of individual war

plans apportioned forces, which may not be available. This will give senior DoD decision makers a true assessment for future investments. The MDEB would possess the knowledge to make hard decisions on using other instruments of national power to achieve missile defense objectives. Specifically leveraging other nation's investments in acquiring missile defense systems for their own defense; this would ease the burden on U.S. missile defense capabilities.

The current WIP, coupled with the MDEB, establishes the baseline for a single development process to unify the effort in achieving U.S. national ballistic missile policy. Through the combination of the MDEB and WIP, missile defense stakeholders could improve on the prioritization methodology and focus on systems that have proven technology today. This holistic approach would unify all the missile defense agencies, in particular: OSD, MDA, Military Departments, USSTRATCOM, and the Combatant Commands. Through a collaborative environment the single development process would enhance a unified acquisition strategy for future investments. The culmination of the single development process is obtaining a focused missile defense community prepared to defend the American people, friends and allies, and U.S. deployed forces.

Endnotes

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